

[1] **EC-TYPE EXAMINATION CERTIFICATE**
according to Directive 94/9/EC, Annex III



(Translation)

[2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC

[3] EC-Type Examination Certificate Number: **IBExU08ATEX1127 X**

[4] Equipment: **Pressure measuring Device type DX18 HU 300**

[5] Manufacturer: **BD SENSORS GmbH**

[6] Address: **BD-Sensors-Str. 1
95199 Thierstein
GERMANY**

[7] This equipment mentioned under [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23rd March 1994, certifies that the under [4] mentioned equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential test report IB-08-3-293 of 21st November 2008.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2004.

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:

II 1/2G Ex ia IIC T4

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0) 3731 3805-0 - 📠 +49 (0) 3731 23650

Authorised for certifications Explosion protection

By order

(Dr. Lösch)



- Seal-
(ID no. 0637)

Freiberg, 24th November 2008

Certificates without signature and seal are not valid.
Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU08ATEX1127 X**

[15] **Description of equipment**

The pressure measuring device DX18 HU 300 describes a pressure transmitter in the high-grade steel enclosure with process tap. The equipment can be used in the separating wall any divided each other zone 0 and 1. As power supply specified intrinsically safe power supplies of the category "ia" have to be used.

Category 1/2 equipment

The process connection of the pressure measurement device may be employed in zone 0 (temperature from -20 °C to +60 °C, pressure from 0.8 bar to 1.1 bar).
The electrical connection is set up in zone 1.

Technical Data

| | |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature range | -25 °C to +70 °C |
| Supply electric circuit (VS+ and VS-) | in type of protection Intrinsic Safety Ex ia IIC U _i 28 V DC I _i 100 mA P _i 700 mW |
| effective inner capacity | C _i 1 nF |
| effective inner inductivity | L _i 5 µH |
| Calibrate input (Cal+ and Cal-) | in type of protection Intrinsic Safety Ex ia IIC U _i 28 V DC I _i 100 mA P _i 700 mW |
| effective inner capacity | C _i 1 nF |
| effective inner inductivity | L _i 5 µH |

The supply connections have an inner capacity of max. 27 nF opposite the housing.

[16] **Test report**

The test results are recorded in the test report IB-08-3-293. The test documents are part of the test report and listed there.

Summary of the Test Result:

The pressure measuring device DX18 HU 300 fulfills the requirements of type of protection Intrinsically safety 'ia' on an electrical component for Equipment Group II Category 1/2G, Explosion Group IIC and temperature class T4.

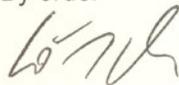
[17] **Special conditions**

The safety and assembly notes contained in the operating instructions and the ambient temperature range $-25\text{ °C} \leq T_a \leq +70\text{ °C}$ have to be observed.

[18] **Essential Health and Safety Requirements**

Confirmed by norms (see [9]).

By order



(Dr. Lösch)

Freiberg, 24th November 2008

IBExU Institut für Sicherheitstechnik GmbH
An-Institut der TU Bergakademie Freiberg

- [1] **1st Addition to**
EC-TYPE EXAMINATION CERTIFICATE IBExU08ATEX1127 X
according to Directive 94/9/EC, Annex III
- Translation -



- [2] Equipment: **Pressure Measuring Device**
Type DX18 HU300
- [3] Manufacturer: BD SENSORS GmbH
- [4] Address: BD-Sensors-Str. 1
95199 Thierstein
GERMANY

[5] **Addition / Modification**

The additions/modifications of the pressure measuring device DX18 HU300 compared with the already certified equipment concern the production of an additional device type with a permanently connected cable and an additional EMC-board.

All other parts relevant for the explosion protection remain unchanged.

The effective inner inductivities and capacities of these device increase by the cable inductivities of 1 µH/m and the cable capacities of 150 pF/m.

[6] **Test Report**

The proof of the explosion protection of the equipment stated under [2] is documented in the test report IB-09-3-208 of 3 August 2009. The test documents are part of the test report.

[7] **Test Result**

IBExU certifies that the equipment stated under [2] fulfils the Essential Health and Safety Requirements given in Annex II of the Directive 94/9/EC by compliance with EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2004.

The equipment stated under [2] fulfils the requirements of explosion protection for electrical equipment in type of protection Intrinsic Safety 'ia', Explosion Group IIC, Temperature Class T4 for Equipment Group II, Category 1/2G.

The marking of the equipment stated under [2] shall include unchanged the following:

II 1/2G Ex ia IIC T4

This addition is only valid in combination with the EC-Type Examination Certificate IBExU08ATEX1127 X of 24 November 2008.

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0) 3731 3805-0 - 📠 +49 (0) 3731 23650

Authorized for certifications
- Explosion protection -

By order

(Dr. Wagner)



- Seal -
(Identification No. 0637)

Freiberg, 3 August 2009

Certificates without signature and seal aren't valid.
Certificates may only be duplicated completely and unchanged.
In case of dispute, the German text shall prevail.